

PATENT COOPERATION TREATY

REC'D 08 APR 2005

WIPO

PCT

PCT

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/IB2005/050242

International filing date (day/month/year)
20.01.2005

Priority date (day/month/year)
23.01.2004

International Patent Classification (IPC) or both national classification and IPC
H04L12/18, H04L1/18

Applicant
KONINKLIJKE PHILIPS ELECTRONICS N.V.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1b/s(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office - Gitschiner Str. 103
D-10958 Berlin
Tel. +49 30 25901 - 0
Fax: +49 30 25901 - 840

Authorized Officer

Goller, W

Telephone No. +49 30 25901-494



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2005/050242

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/B2005/050242

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	2-14,16-18,20
	No: Claims	1,15,19
Inventive step (IS)	Yes: Claims	
	No: Claims	1-20
Industrial applicability (IA)	Yes: Claims	1-20
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V.

1. Reference is made to the following documents:

D1 : US 5 553 083 A (MILLER ET AL) 3 September 1996 (1996-09-03)
D2: YAMAUCHI Y ED - NG C S ET AL: "On the packet radio multicast scheme for the personal communications era" SINGAPORE ICCS '94. CONFERENCE PROCEEDINGS. SINGAPORE 14-18 NOV. 1994, NEW YORK, NY, USA, IEEE, US, vol. 2, 14 November 1994 (1994-11-14), pages 576-580, XP010150006 ISBN: 0-7803-2046-8
D3: PEJHAN S ET AL: "ERROR CONTROL USING RETRANSMISSION SCHEMES IN MULTICAST TRANSPORT PROTOCOLS FOR REAL-TIME MEDIA" IEEE / ACM TRANSACTIONS ON NETWORKING, IEEE INC. NEW YORK, US, vol. 4, no. 3, 1 June 1996 (1996-06-01), pages 413-427, XP000591081 ISSN: 1063-6692
D4: EP-A-1 154 660 (NTT DOCOMO, INC) 14 November 2001 (2001-11-14)
D5: US 2003/058821 A1 (LEE CHIEH-HO ET AL) 27 March 2003 (2003-03-27)

2. INDEPENDENT CLAIMS 1, 15, 19

- 2.1 Non-withstanding the lack of clarity (see Item VIII), the present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1, 15, 19 is not new in the sense of Article 33(2) PCT.

Document D1 discloses (the references in parentheses applying to this document):
A method of operating a packet data multicast communication system comprising a first station and a plurality of second stations, the first and second stations having transceiving equipment for communication between the first and second stations (column 2 lines 32-35, definition of any multicast system),
the method comprising the first station transmitting a data packet and at least one of the plurality of the second stations receiving the data packet (column 2 lines 32-35),
wherein least one of the plurality of the second stations measures the quality of reception of the received data packet (column 2 lines 50-53, clients indicate if packets need to be resent, determination if a packet needs to be resent is also a determination of the quality of the received packet),
and determining into which one of at least three predetermined quality ranges the

- measured quality falls (column 2, lines 50-55, the three quality ranges defined in D1 are: correctly received; received in error; not received at all), wherein the first station adopts a respective subsequent transmitter behaviour in response to each of the at least three predetermined quality ranges (implicit in D1, retransmission or not) and wherein the subsequent transmitter behaviour corresponding to at least two non-contiguous ones of the quality ranges is identical (column 2 lines 46-55, retransmission is requested for the quality ranges "received in error" and "not received". As no definition of "non-contiguous" is given, "received in error" and "not received" are considered as non-contiguous).
- 2.2 Independent claims 15 and 19 relate to system carrying out the method of claim 1 and a receiver station used in this system. As D1 also discloses the system (column 2 lines 40 - 45) and the receiver (column 2 line 33), the subject-matter of claims 15 and 19 is also not novel.
3. **DEPENDENT CLAIMS 2-14, 16-18, 20**
Dependent claims 2-14, 16-18, 20 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT).
4. It should be noted that neither the independent nor the dependent claims clearly define the embodiment defined in the description page 4 lines 7-21.
Concerning the novelty and/or involvement of an inventive step of embodiments defined in the description, the attention is drawn to documents D2-D5, eg D2 paragraphs 2.1 and 2.2.
- Re Item VIII.**
5. The application does not meet the requirements of Article 6 PCT, as claims 1-20 are not clear.
- 5.1 Independent claims 1, 15 and 19 define that "at least three" quality ranges exist out of which "at least two" are non-contiguous. As "at least three" and "at least two" is not limited to 3 or 2 respectively, this vague and unclear definition also includes impossible cases eg that three out of three are non-contiguous. This definition is

therefore not clear.

Moreover, the case that 3 ranges are defined and the transmitter behaviour is identical in all 3 ranges is also included in this definition. In this case the definition of the ranges would be completely arbitrary.

- 5.2 Furthermore, it is defined that two quality ranges are non-contiguous without defining criterion for determining if two quality ranges are non-contiguous. This feature is thus not clear and therefore does not limit the scope of the claims at all.
- 5.3 Claim 19 refers to a "second station", which could be interpreted in the light of the description to be a receiving station. However, the features defined relate to the first station, which is apparently the transmitter station. It is therefore not clear, for which subject-matter protection is sought.
- 5.4 The definition of the claims is unduly broad in comparison to the description, therefore, the scope of the claims is not supported by the description. None of the claims clearly defines the embodiment of the description page 4 lines 7-21.

PATENT COOPERATION TREATY

REC'D 08 APR 2005

WIPO

PCT

PCT

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/IB2005/050242

International filing date (day/month/year)
20.01.2005

Priority date (day/month/year)
23.01.2004

International Patent Classification (IPC) or both national classification and IPC
H04L12/18, H04L1/18

Applicant
KONINKLIJKE PHILIPS ELECTRONICS N.V.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office - Gitschiner Str. 103
D-10958 Berlin
Tel. +49 30 25901 - 0
Fax: +49 30 25901 - 840

Authorized Officer

Goller, W

Telephone No. +49 30 25901-494



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2005/050242

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/B2005/050242

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	2-14,16-18,20
	No: Claims	1,15,19
Inventive step (IS)	Yes: Claims	
	No: Claims	1-20
Industrial applicability (IA)	Yes: Claims	1-20
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V.

1. Reference is made to the following documents:

- D1 : US 5 553 083 A (MILLER ET AL) 3 September 1996 (1996-09-03)
D2: YAMAUCHI Y ED - NG C S ET AL: "On the packet radio multicast scheme for the personal communications era" SINGAPORE ICCS '94. CONFERENCE PROCEEDINGS. SINGAPORE 14-18 NOV. 1994, NEW YORK, NY, USA, IEEE, US, vol. 2, 14 November 1994 (1994-11-14), pages 576-580, XP010150006 ISBN: 0-7803-2046-8
D3: PEJHAN S ET AL: "ERROR CONTROL USING RETRANSMISSION SCHEMES IN MULTICAST TRANSPORT PROTOCOLS FOR REAL-TIME MEDIA" IEEE / ACM TRANSACTIONS ON NETWORKING, IEEE INC. NEW YORK, US, vol. 4, no. 3, 1 June 1996 (1996-06-01), pages 413-427, XP000591081 ISSN: 1063-6692
D4: EP-A-1 154 660 (NTT DOCOMO, INC) 14 November 2001 (2001-11-14)
D5: US 2003/058821 A1 (LEE CHIEH-HO ET AL) 27 March 2003 (2003-03-27)

2. INDEPENDENT CLAIMS 1, 15, 19

- 2.1 Non-withstanding the lack of clarity (see Item VIII), the present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1, 15, 19 is not new in the sense of Article 33(2) PCT.
Document D1 discloses (the references in parentheses applying to this document):
A method of operating a packet data multicast communication system comprising a first station and a plurality of second stations, the first and second stations having transceiving equipment for communication between the first and second stations (column 2 lines 32-35, definition of any multicast system),
the method comprising the first station transmitting a data packet and at least one of the plurality of the second stations receiving the data packet (column 2 lines 32-35),
wherein least one of the plurality of the second stations measures the quality of reception of the received data packet (column 2 lines 50-53, clients indicate if packets need to be resent, determination if a packet needs to be resent is also a determination of the quality of the received packet),
and determining into which one of at least three predetermined quality ranges the

- measured quality falls (column 2, lines 50-55, the three quality ranges defined in D1 are: correctly received; received in error; not received at all), wherein the first station adopts a respective subsequent transmitter behaviour in response to each of the at least three predetermined quality ranges (implicit in D1, retransmission or not) and wherein the subsequent transmitter behaviour corresponding to at least two non-contiguous ones of the quality ranges is identical (column 2 lines 46-55, retransmission is requested for the quality ranges "received in error" and "not received". As no definition of "non-contiguous" is given, "received in error" and "not received" are considered as non-contiguous).
- 2.2 Independent claims 15 and 19 relate to system carrying out the method of claim 1 and a receiver station used in this system. As D1 also discloses the system (column 2 lines 40 - 45) and the receiver (column 2 line 33), the subject-matter of claims 15 and 19 is also not novel.
3. **DEPENDENT CLAIMS 2-14, 16-18, 20**
Dependent claims 2-14, 16-18, 20 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT).
4. It should be noted that neither the independent nor the dependent claims clearly define the embodiment defined in the description page 4 lines 7-21.
Concerning the novelty and/or involvement of an inventive step of embodiments defined in the description, the attention is drawn to documents D2-D5, eg D2 paragraphs 2.1 and 2.2.
- Re Item VIII.**
5. The application does not meet the requirements of Article 6 PCT, as claims 1-20 are not clear.
- 5.1 Independent claims 1, 15 and 19 define that "at least three" quality ranges exist out of which "at least two" are non-contiguous. As "at least three" and "at least two" is not limited to 3 or 2 respectively, this vague and unclear definition also includes impossible cases eg that three out of three are non-contiguous. This definition is

therefore not clear.

Moreover, the case that 3 ranges are defined and the transmitter behaviour is identical in all 3 ranges is also included in this definition. In this case the definition of the ranges would be completely arbitrary.

- 5.2 Furthermore, it is defined that two quality ranges are non-contiguous without defining criterion for determining if two quality ranges are non-contiguous. This feature is thus not clear and therefore does not limit the scope of the claims at all.
- 5.3 Claim 19 refers to a "second station", which could be interpreted in the light of the description to be a receiving station. However, the features defined relate to the first station, which is apparently the transmitter station. It is therefore not clear, for which subject-matter protection is sought.
- 5.4 The definition of the claims is unduly broad in comparison to the description, therefore, the scope of the claims is not supported by the description. None of the claims clearly defines the embodiment of the description page 4 lines 7-21.